



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|----------------------------|------------------------|
| 09/816,318 | 03/28/2001 | Ravi Prakash | CHA9 2001 0003USI | 4786 |
| 23550 7590 06/12/2007 HOFFMAN WARNICK & D'ALESSANDRO, LLC 75 STATE STREET 14TH FLOOR ALBANY, NY 12207 | | | EXAMINER AMINI, JAVID A | |
| | | | ART UNIT 2628 | PAPER NUMBER |
| | | | MAIL DATE 06/12/2007 | DELIVERY MODE PAPER |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/816,318

Applicant(s)

PRAKASH ET AL.

Examiner

Javid A. Amini

Art Unit

2628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) 4,7-9,16-19,24,25 and 27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-6, 10-15, 20-23, and 26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/23/2007 has been entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-6, 10-15, 20-23, and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reitmeier et al. Patent No.: 4,432,009, hereinafter Reitmeier, and in view of Pasco et al. Patent No.: 6,064,778, hereinafter Pasco.

Claim 1.

Reitmeier in the abstract teaches a method of rotating a first image in art image buffer (i.e. noted in the abstract; col. 3, lines 55-59; col. 17 lines 15-20, the method comprising the steps of: (Reitmeier in the abstract discloses the digital video to be stored in memory) extracting first image from the image buffer (see abstract); Reitmeier teaches creating a rotated image that is substantially free of aliasing error (i.e. noted at col. 2 lines 47-54) using weighted sums of a

Art Unit: 2628

plurality of data points of the first image that represent pixel data values of the first image (i.e. noted at col. 7 lines 19-30), wherein weighting depends on a skew angle of the first image and data point location in the first image (i.e. noted at col. 8 lines 40-67 and the bridging paragraph in cols. 8-9); Reitmeier teaches outputting the rotated image from the image buffer (i.e. noted in col. 1 lines 46-67 and the bridging paragraph with col. 2),

Reitmeier does not explicitly specify the step of creating the rotated image is provided by applying the following algorithm to the first image data:

$V_0 = K_h * K_v (V_1 + V_4 - V_2 - V_3) + K_h (V_3 - V_4) + K_v (V_2 - V_4) + V_4$ wherein V_0 is a data point of the rotated image; V_1 , V_2 , V_3 and V_4 are first image data points that each incorporated a portion of V_0 ; and K_h and K_v are fractions that are fractions of skew angle and data point location of the first image”.

However, Pasco teaches “ ... the step of creating the rotated image is provided by applying the following algorithm to the first image data:

$V_0 = K_h * K_v (V_1 + V_4 - V_2 - V_3) + K_h (V_3 - V_4) + K_v (V_2 - V_4) + V_4$ wherein V_0 is a data point of the rotated image; V_1 , V_2 , V_3 and V_4 are first image data points that each incorporated a portion of V_0 (i.e. noted in col. 10 lines 59-64 the data points before and after rotation); and K_h and K_v are fractions (i.e. noted in col. 8 lines 14-29) that are fractions of skew angle and data point location of the first image” (i.e. noted in col. 10 lines 50-67, and the bridging paragraph in cols. 10-11).

Thus, it would have been obvious to a person skill in the art at the time of the invention to combine Pasco into Reitmeier in order to minimize the storage capacity required to store, a document as an image.

Art Unit: 2628

Claim 2.

Reitmeier in col. 1 lines 11-12 teaches the first image is of a document, and the first image data is created in the image buffer by the step of scanning the document.

Claim 3.

Reitmeier does not explicitly specify the step of storing the first image data in a database.

However, Pasco teaches the step of storing the first image data in a database (i.e. noted in fig. 1 ref.# 8 “image storage”).

Thus, it would have been obvious to a person skill in the art at the time of the invention to combine Pasco into Reitmeier in order to minimize the storage capacity required to store, a document as an image.

Claim 5.

Reitmeier teaches wherein K_h and K_v are implemented in $1/8^{\text{th}}$ increments (i.e. noted in col. 9 lines 48-49, the pixel scan rate clock pulses may be equivalent to $1/8^{\text{th}}$ increments).

Claim 6.

Reitmeier teaches the step of providing K_h and K_v in at least one lookup table (i.e. noted in col. 23 lines 61-65).

Claim 10.

Claim 10 is rejected with a similar reason as set forth in the claim 1, above.

Claim 11.

Reitmeier teaches the data points of the initial image are in adjacent rows of the image buffer (i.e. noted in the abstract).

Claim 12.

Art Unit: 2628

Reitmeier teaches pair of data points (i.e. noted in the abstract as a Cartesian coordinates, e.g. x, and y points) are used from each of the adjacent rows of the image buffer (see, abstract).

Claim 13.

Reitmeier teaches an image generation module configured to create the initial image (i.e. noted in col. 2 lines 39-41).

Claim 14.

Reitmeier teaches a scanner for supplying data to the image generation module (i.e. noted in col. 2 lines 33-46, the image information is supplied to the FSM, see also col. 2 lines 3-5).

Claim 15.

Claim 15 is rejected with a similar reason as set forth in claim 3, above.

Claim 20.

Claim 20 is rejected with a similar reason as set forth in claim 5, above.

Claim 21.

Claim 21 is rejected with a similar reason as set forth in claim 6, above.

Claim 22.

Reitmeier teaches a workstation comprising the system for rotating an initial image stored in an image buffer of claim 10 (i.e. noted in fig. 1 refs. # 21 and 22).

Claim 23.

Claim 23 is rejected with a similar reason as set forth in claim 1, above.

Claim 26.

Claim 26 is rejected with a similar reason as set forth in claim 1, above.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Javid A. Amini whose telephone number is 571-272-7654. The examiner can normally be reached on 8-4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kee Tung can be reached on 571-272-7794. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Javid A Amini
Examiner
Art Unit 2628

J.A.

A handwritten signature in black ink, appearing to read 'Javid A. Amini', is written over the printed name and title.